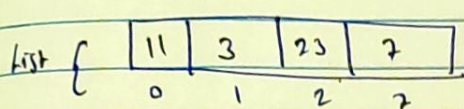## Section 4 : Linked List

17) Linked List Intro

List {

11	3	23	7
0	1	2	7

| 11 | 3 | 27 | 7 | → Linked List
|----|---|----|---|

without index.

→ Array are in contiguous in memory

| 11 | | 3 | | 23 | | 7 |

→ But not linked list they can all over the places.

(11) → (3) → (21) → (7) → null

↑ Head

Tail
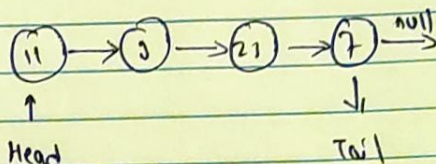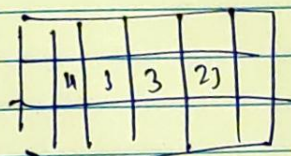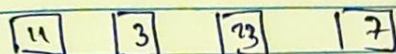
→ null terminated list
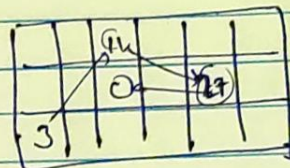
18) LL : Big O.

→ In linked list it doesn't matter item either 4 or) 100 no. of steps would be the same, which means this is constant time to push.

→ which mean O(1)

	LL	Array
Push	O(1)	O(1)
pop	O(n)	O(1)
Shift	O(1)	O(n)
unshift	O(1)	O(n)
insert	O(n)	O(n)
Delete	O(n)	O(n)
Lookup by index	O(n)	O(1)
Lookup by value	O(n)	O(n)